

Fact Sheet

Patents Awarded in CY 1993–1995

PATENT #	INVENTOR(S)	TITLE OF INVENTION	DESCRIPTION
5,202,034	Dr. C. James Martel	Apparatus and Method to Remove Water from Aqueous Sludge	A cost-efficient method of removing sludge during the treatment process at water treatment plants
5,245,771	Michael R. Walsh	Drag Snow Plow for Off-Road Use	An adapted trailable plow for use in towing behind a vehicle
5,248,200	Michael R. Walsh	Portable Asphalt Thermal Stress Device	A device for measuring thermal stresses and strains in asphalt samples
5,250,192	Dr. C. James Martel	Sludge Dewatering by Freezing	A method and apparatus for dewatering sludges by freezing
5,255,993	Austin Kovacs	Push-Button Coupler	A spring-loaded push-button connector device capable of coupling and locking structural elements
5,295,759	Stephen N. Flanders	Snow Plow-Compatible Speed Bumps (1)	Speed bumps that are compatible with the use of snow plows and that control the speed of vehicular traffic
5,296,028	Charles J. Korhonen Edel R. Cortez	Antifreeze Admixture for Concrete	A concrete admixture and method of curing concrete for use at low temperatures
5,327,734	F. Donald Haynes John P. Zarling	Passive-Active Hybrid Thermosyphon	A passive-active thermosyphon for use in frozen or unfrozen soil to stabilize foundations in frozen areas William F. Quinn
5,339,893	F. Donald Haynes John P. Zarling William F. Quinn	Toxic Spill Containment by Thermosyphons	A thermosyphon used to create a frozen soil barrier for containing toxic spills
5,415,493	Robert A. Eaton	Snow Plow-Compatible Speed Bumps (3)	Speed bumps that are compatible with the use of snowplows and that control the speed of vehicular traffic
5,419,652	Stephen N. Flanders	Snow Plow-Compatible Speed Bumps (2)	Speed bumps that are compatible with the use of snowplows and that control the speed of vehicular traffic



**US Army Corps
of Engineers**

Cold Regions Research &
Engineering Laboratory

PATENT #	INVENTOR(S)	TITLE OF INVENTION	DESCRIPTION
5,446,448	Jon E. Zufelt Charles S. Clark David H. Deck	River Ice Motion Detector	A method to measure the motion of river ice at the onset of movement
Pending 5/17/94	Karen S. Henry	Geosynthetic Barrier to Prevent Wildlife Access to Contaminated Sediments	A barrier to deny access of wildlife to contaminated sediments, while permitting gas formed in the sediment layer to escape
Pending 12/6/94	Dr. Patrick B. Black	Clapeyron Thermometer	A high-resolution thermometer
Pending 2/8/95	Michael R. Walsh Dennis J. Lambert	Debris Exclusion System for Augerhead-Type Hydraulic Dredge System the system's pump	An improved augerhead-type hydraulic dredge system with debris exclusion devices for prevention of harmful debris ingestion to
Pending 4/19/95	Michael R. Walsh Dr. Vincent C. Janoo	Static and Dynamic Thermal Stress Measurement Device for Elastic or Viscoelastic Materials	Apparatus for measuring thermally induced properties of sample materials
Pending 5/15/95	Dr. Norbert E. Yankielun	Optical Time-Domain Reflectometry-Based Probe for a Continuous Monitoring of Soil Freezing Front Propagation	A system for continuously monitoring a freezing front
Pending 6/8/95	Dr. Norbert E. Yankielun Michael G. Ferrick	A Microwave Doppler Radar System for Detection and Kinematic Measurements of River Ice	A microwave continuous wave Doppler radar system for river ice motion detection and real-time kinematic data acquisition using digital signal processing equipment
Pending 6/15/95	Dr. Norbert E. Yankielun	Doppler Velocimeter for Monitoring Groundwater Flow	A method for monitoring groundwater flow
Pending 6/19/95	F. Donald Haynes John P. Zarling	Thermosyphon Vapor Control Device	A thermosyphon apparatus for the transfer of heat from the underground to cold air

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